

Smart Growth Annual Report



Parris N. Glendening, Governor
Kathleen Kennedy Townsend, Lt. Governor



J. Charles Fox, Secretary
Karen M. White, Deputy Secretary

Maryland
Department of
Natural Resources

2001



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Maryland Department of Natural Resources

Tawes State Office Building
580 Taylor Avenue
Annapolis, Maryland 21401

J. Charles Fox
Secretary

Karen M. White
Deputy Secretary



Dear Fellow Citizens of Maryland:

Smart Growth represents a new way of thinking about the world we live today and more importantly, about the world we want to leave for tomorrow's generations to enjoy. As stewards of Maryland's natural resources it is this Department's obligation to use the best science, the newest technologies and the most creative thinking to find ways to accommodate growth while still protecting Maryland's treasured living and natural resources.

The Department provides the focus and funding necessary to protect large contiguous tracts of land and other resources from sprawl development. The Department also identifies and protects Maryland's remaining ecologically valuable lands and provides technical assistance to communities to restore and enhance urban natural resources and improve the urban living environment. In addition, DNR also partners with the State's building industry and local governments to ensure that land development and building practices occur in an environmentally responsible manner; develops strategies to protect the water quality of the Chesapeake Bay and its tributaries; and provides technical assistance to local governments to help them protect streams, sensitive areas and watersheds.

The *2001 Smart Growth Annual Report* briefly describes all of the programs and activities within the Department of Natural Resources that are helping Maryland accommodate growth while simultaneously protecting, conserving, and enhancing valuable natural resources. As you will see within these pages, the programs, activities and employees of the Maryland Department of Natural Resources are working hard to maintain a critical balance between human activity and the health of our natural world.

Sincerely

A handwritten signature in black ink that reads "J. Charles Fox".

J. Charles Fox



State of Maryland Department of Natural Resources

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DNR's Smart Growth Tool Box

Our Mission Statement

Our Smart Growth Mission Statement

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Department of Natural Resources Goals:

Goal # 1	Ensure sustainable populations of living resources and aquatic habitat in the mainstream of the Chesapeake Bay, tidal tributaries and Coastal bays.
Goal #2	Healthy Maryland watershed lands, streams, and non-tidal rivers
Goal #3	A Natural resource stewardship ethic for Marylanders
Goal #4	Vibrant local communities in balance with natural systems
Goal #5	Establish a protected statewide network of ecologically value able private and public lands (Green Infrastructure)
Goal #6	Provide for the enjoyment of diverse outdoor recreation opportunities for Maryland citizens and visitors
Goal #7	Ensure a diverse, well supported, cooperative and informed workforce
Goal #8	Assure efficient and effective operations

The DNR Mission

"For today and tomorrow the Department of Natural Resources inspires people to enjoy and live in harmony with their environment, and to protect what makes Maryland unique our treasured Chesapeake Bay, our diverse landscapes and our living and natural resources."



DNR's Role in Smart Growth

At the heart of Governor Parris N. Glendening's Smart Growth Program is a simple vision: To support exiting communities, preserve Maryland's best agricultural and natural areas, and save taxpayers from the high cost of building infrastructure to support development that has spread far from our traditional population centers. Since 1997, Maryland has been working hard to strike a balance between the natural and built environments, to find ways to accommodate growth while still protecting what is best about Maryland.

As the State agency principally responsible for managing the protecting, conservation, enhancement and balanced use of the State's natural resources, the Department of Natural Resources plays a significant role in achieving the goals of Smart Growth. By studying and understanding the connections between the land, the water, and the life that inhabits them and working to restore and protect these systems, the Department of Natural Resources is helping to shape the future and the quality of life for future generations. Within this role, the Department has numerous programs and initiatives which contribute to the Smart Growth effort. Those programs that focus on protecting rural landscapes, agriculture lands, forests, and other natural areas, as well as those that focus on enhancing the urban environment and reducing the impact of development on the landscape, are fundamental to the Department's efforts.

The Rural Legacy Program, GreenPrints, Community Parks and Playgrounds, and the Green Building Program are the foundation for the Department's Smart Growth efforts. Several other Departmental programs also make notable contributions to the State's Smart Growth Initiative.

Growth and Resource Conservation Service

In 1996, the Department of Natural Resources (DNR) created the ***Growth and Resource Conservation Service*** (GRCS) to coordinate the Department's participation in the Smart Growth Initiative. Through internal Smart Growth education, ethos development, and program evaluation, the Growth and Resource Conservation Division works to integrate Smart Growth and neighborhood conservation strategies into the Department's mission and eight department-wide goals. When it comes to Smart Growth, conserving natural resources means more than preserving land and protecting water quality; it means finding new products, creative methods and innovative tools to help Marylanders change the way we do business thus reducing negative impacts on our resources. Identified below are the programs and accomplishments for year 2001, that comprise DNR's ***Smart Growth Toolbox***.

The Maryland Department of Natural Resources' Smart Growth Mission Statement

"The Department of Natural Resources is committed to achieving those goals of Smart Growth by fully executing those Department programs required under the 1992 Planning Act and the 1997 Smart Growth Initiative; utilizing GIS technology, the Green Infrastructure network, and other resources to identify natural resource lands and open space most in need of protection; fully supporting and implementing those Department programs which protect natural resource lands and open space; identifying and implementing resource protection measures which reinforce neighborhood conservation, urban revitalization, and green building and development; providing resource planning assistance to local governments; and ensuring that Smart Growth is a "guiding ethos" for program activities."

Goal One - A Vital and Life Sustaining Chesapeake Bay and its Tributaries

Meeting the challenge of protecting whole and healthy ecosystems in an increasingly developing landscape.

Maryland's Tributary Strategy Teams

As a group of nearly 300 volunteers, the Maryland Tributary Teams have been working in Maryland since 1995. These ten distinct groups have united Maryland farmers, citizens, environmental groups, businesses and local jurisdictions in a common cause: To improve water quality in their own back yards and the Bay's ten sub-watersheds. Through educational programs, nutrient reduction projects and habitat improvement activities, the Tributary Teams work to protect and restore water quality. Understanding that today's sprawling development patterns will overwhelm progress made to date, the Tributary Teams' activities align with many principles of Smart Growth.

In 2001 - The Lower Western Shore and the Patapsco/Back Teams organized an urban tree nursery and riparian buffer plantings within the Annapolis and Baltimore City Priority Funding Area. The Patapsco/Back and the Middle Potomac Tributary Teams, two urban watersheds draining the Baltimore and Washington metro areas, held Secchi Dip-Ins. Modeled after Senator Bernie Fowler's Wade-In, these unique public outreach events have helped increase public support for the restoration and protection of the Chesapeake Bay and its tributaries.

The Maryland Tributary Teams' Developed Land Cross-Team Workgroup, a forum for Team members who are interested in developed lands to discuss issues, goals and accomplishments, continued to promote innovative tools and best management practices. Topics addressed during meetings included stormwater management regulation changes, proposed laws and regulatory changes for septic systems, financial assistance through state loans or grants, low impact development, green roofs, education and outreach.

Chesapeake Bay 2000 Agreement

On June 28, 2000, the new Bay Agreement was signed by the Chesapeake Bay Executive Council, comprised of representatives from Maryland, Virginia, Pennsylvania, the District of Columbia, the Chesapeake Bay Commission and the Federal Government. Chesapeake 2000 builds upon previous Agreements signed in 1983 and 1987, with stronger commitments for stewardship and restoration of the Chesapeake Bay. Formulated with a better understanding of the correlation between population growth and associated development and environmental degradation in the Chesapeake system, the new Bay Agreement aligns itself with many Smart Growth principles, including a call for a 30 percent reduction in sprawl development and the preservation of 20 percent of the watershed's land area from development.

Goal 2 Sustainable Populations of Living Resources and Healthy Ecosystems

Creating an environmentally sound future for the Chesapeake Bay and its more than 10,000 miles of non-tidal rivers and streams.

Conservation Reserve Enhancement Program

In 1998 Governor Parris N. Glendening and Vice President Al Gore signed a precedent setting Memorandum of Understanding establishing the Maryland Conservation Reserve Enhancement Program (CREP). This public/private partnership reimburses farmers for establishing riparian forest or grass buffers, planting permanent cover on sensitive agricultural lands and restoring wetlands for the health of the Chesapeake Bay. In addition to trees, monthly enrollments average about 300 acres of warm season grasses critical to the conservation of declining grassland nesting bird species.

In 2001 - To help Maryland meet the needs of the Conservation Reserve Enhancement Program, in 2001 more than 6.5 million seedlings were grown and sold at the John S. Ayton Forest Tree Nursery. In 2001, n

4,066.1 acres were planted and 12,983.2 acres were enrolled. The total estimated obligated and expended direct and indirect costs for CREP in Maryland in 2001 was \$28,771,057.

Forest Conservation Act

The Forest Conservation Act was adopted to conserve the State's forest resources during land development. The Act requires identification of existing forest stands, protection of the most desirable forest stands and establishment of areas where new forest can be planted. Forest conservation planning occurs during the initial design or site plan of a proposed development when forest conservation can occur without creating undue economic costs. The FCA establishes standards for local authorities to enforce during development. The Act is a means to protect not only the forest and trees in developing areas, but also any sensitive areas identified during the local planning or comprehensive land use plan adoption process. Standards established in the Act for identification, retention and replanting include those areas designated as sensitive areas under the Growth Management, Resource Protection and Planning Act of 1992.

In 2001 - A total of 734 acres in forest were planted during 2001. This figure includes on and off-site afforestation and reforestation. The number of acres reviewed total 15,296.2. Costs for the program, including county, state, and local programs are as follows:

- Fees collected in lieu of on-site planting: \$861,117
- Fees collected in lieu of on-site planting: \$341,593
- Enforcement (collected for violations): \$117,098
- Implementation: \$892,396

Maryland Biological Stream Survey (MBSS)

The Maryland Biological Stream Survey (MBSS) is a comprehensive program to assess the status of biological resources in Maryland's non-tidal streams. With increasing focus on managing and restoring stream resources, accurately assessing the conditions of Maryland's aquatic resources is critical. MBSS data, including newly developed biocriteria, are now being integrated into Maryland's water quality regulatory framework and MBSS findings are

Stream ReLeaf



being used to revise listings of endangered aquatic species, target priority stream restoration projects, predict potential development impacts and estimate stream restoration costs. The MBSS is an important Smart Growth tool in that it measures the extent to which development and urbanization affect the health of Maryland's streams and living resources.

In 2001 - In 2001, MBSS surveyed 17 sub-watersheds, which are listed below by 8-digit watershed numbers. An asterisk notes those watersheds that include a substantial area **within a Priority Funding Area**.

- Youghiogheny River
- Potomac River Upper N.Branch
- Potomac River Allegheny County
- Piscataway Creek*
- Potomac Upper Tidal/Oxon Creek*
- Seneca Creek*
- Bodkin Creek/Baltimore Harbor*
- Patuxent River Middle*
- Patuxent River Western Branch*
- Gilbert Swamp*
- Zekiah Swamp*
- Deer Creek
- Northeast River
- Sassafras River
- Upper Pocomoke River*
- Dividing Creek/Nassawango Creek
- Assawoman/Isle of Wight

Stewardship and careful management of our streamside and shoreline areas are important for realizing many of our goals for the Chesapeake Bay, such as reducing nutrients, improving habitat, and enhancing watershed management as well as achieving the natural resource protection goals of Smart Growth. Maryland Stream ReLeaf is a project committed to restoring forested buffers along streams and shorelines, and to conserving riparian buffers throughout the State. In October 1996, Governor Parris N. Glendening pledged that Maryland would create 600 miles of riparian forested buffers by the year 2010, supporting the Chesapeake Bay Program's Riparian Forest Buffer Initiative.

In 2001 - The original goal of 600 miles was increased to 1,200 miles by 2010. Planting streamside forests is one of the most effective ways of improving water quality and wildlife habitat. State-wide, 4,606 acres were planted in 2001. This figure includes acreage in the CREP and other planting programs. The total number of acres planted between 1996 and the end of 2001 is 9,736.5 acres.

Forest Stewardship Program

The Forest Stewardship Program provides technical assistance to help landowners enhance or protect the timber, fish/wildlife habitat, water quality, wetlands, and recreational/aesthetic values of their property as well as find ways to utilize sustainable land management practices that protect the Chesapeake Bay. Projects eligible for technical and/or financial assistance include afforestation, forest improvements, windbreaks and hedgerows, streamside and wetland protection, fish habitat improvements, wildlife habitat enhancement, and soil and water protection.

In 2001 - Plans were prepared for 385 tracts of land, covering 23,964 acres.

Watershed Restoration

Stream systems across the State have been impacted by changes in land use and land cover. The reduction in forest cover and increase in impervious surfaces through development have forced stream systems to adjust to the changes in hydrology. The resulting impacts on streams can be seen in eroding banks, deepening channels, and finer sediments in the stream bed. All of

these changes affect the function and the habitat and aesthetic qualities of the stream and all are directly related to the land-use activities taking place within the watershed. Restoration of a watershed involves the coordination of all of the various land-use and land cover components to establish a balance between the habitat and aesthetic goals and land development desires. Those components include forest management and planting, riparian buffer creation or enhancement, stream channel restoration, wetland restoration/creation, pollution prevention techniques, and land development techniques. The Watershed Restoration Division of DNR works with local governments, Soil Conservation Districts, non-profit groups, businesses, and private landowners to develop restoration plans that target restoration efforts, implement projects and evaluate effectiveness for small watershed areas. The Division contributes to Smart Growth by investigating how land development impacts a watershed and then determining the appropriate measures and best management practices that will mitigate those impacts. These measures may include alternative stormwater management practices or community and site designs that minimize impervious cover.

In 2001 - The Watershed Restoration Division coordinated with a number of Maryland counties, local government agencies and other conservation organizations to assess watershed and stream health as well as implement habitat restoration projects. For example, the Watershed Restoration Division worked with Allegany County and number of local groups to complete a Stream Corridor Assessment (SCA) along George's Creek. This assessment helps State, County and local organizations understand the problems which may occur in and along the stream as well as target restoration opportunities. The Division also undertook a three-year study of anadromous fish usage and blockages in the lower Patapsco River basin. This study will provide information on current use by anadromous fish and provide information on impediments to spawning areas. In addition, the Watershed Restoration Division worked with a number of different groups statewide, to restore wetlands, riparian buffers and streams. In New Windsor, the Division worked with private landowners and local government agencies to restore 10 acres of wetlands along Little Pipe Creek. The restoration of these important resources will help to improve water quality and provide improved habitat for fish and other aquatic species.



Goal 3 Natural Resources Stewardship Ethic for Marylanders

Inspiring people to think about the Maryland they live in today and, more importantly, about the Maryland they want to leave for tomorrow's generations to enjoy.

Tributary Team Public Outreach Workgroup

Formed in 1996 the Public Outreach Workgroup is coordinated by the Department of Natural Resources and provides support to assist the Maryland Tributary Teams in their education and outreach efforts.

During 2001 - In partnership with the *Baltimore Sun*, the Tributary Team Public Outreach Workgroup and DNR's Growth and Resource Conservation Division worked to develop "**Picture Maryland**" - an educational insert printed and distributed in the Earth Day (April 22, 2001) *Sunday Sun*. This project builds on the past successful collaborative project with *The Baltimore Sun* - the "*Fragile - Handle with Care*" magazine insert developed to reach, motivate and educate large numbers of citizens to take

specific actions to protect water quality. "Picture Maryland" focused on growth and the actions individuals and communities can take to enhance the livability of existing and future communities. The project included a 32-page booklet that reached over one million people, a companion web-site to be hosted on the Baltimore Sun's SunSpot, and an interactive **Teachers Resource Guide** that was distributed to over 800 classrooms in Maryland.

Goal 4 Vibrant Local Communities in Balance with Natural Systems

Protecting open spaces against sprawl and providing recreational opportunities, habitat for wildlife, buffers for pollution, and places for people to gather and enhance their sense of place.

Community Parks and Playgrounds Program

The Community Parks and Playgrounds Program (CPP) is a part of Governor Parris N. Glendening's new "Smart Growth" package and designed to reduce sprawl and revitalize existing communities. The CPP Program provides a dedicated fund source to allow the State to focus on restoring

existing and creating new park and green space systems in Maryland's cities and towns. Through this program, flexible grants are provided to local governments to respond to the need for assistance to rehabilitate, improve new parks and to purchase and install playground equipment in older neighborhoods and intensely developed areas throughout the state.

In 2001 - The program generated over \$46M in requests for funding. Each Maryland jurisdiction including Baltimore City, was represented among the pool of applications. More than 300 grant applications were received from local governments and municipalities. Also, the Board of Public Works approved the first Community Parks and Playgrounds grant request in the amount of \$5.4M to fund 41 projects. Funded projects include replacing antiquated play equipment and constructing accessible park facilities. Since the CPP program is designed to support the goals of Smart Growth, all projects are located in an existing community/neighborhood within a "Smart Growth Priority Funding Area."

Program Open Space

In 1969, astute legislators realized that the people of Maryland are defined by their natural environment. An environment, then as now, threatened by reckless and thoughtless development. These legislators advocated for the environment and Maryland's way of life when they supported Program Open Space (POS) legislation that provided for the perpetual conservation of open space and the provision of outdoor recreation opportunities. By using various funding sources, including state special and bond funds as well as the federal Land and Water Conservation Fund, Program Open Space has served as a model for other land conservation and recreation programs across the nation. Primary funding is provided by the state transfer tax of .5% of the consideration paid for the transfer of real property from one owner to another. The greater the development pressure, the more transfers, and thus the more transfer tax revenue realized for land conservation and recreation facilities. This direct correlation between development pressure and available funding for open space and recreational facilities is a key factor contributing to the Program's 32-year success.

In 2001 - Maryland's county and municipal governments won Board of Public Works approval for nearly \$20 million in POS

funding, and POS dedicated \$10 million more to protect priority conservation acreage. This program has helped the state protect more open space than was lost for seven of the last ten years.

Watershed Restoration Action Strategies

In partnership with five counties and local public and private entities, DNR began developing local watershed restoration action strategies for priority watersheds as part of the Maryland Clean Water Action Plan.

In 2001 - Strategies to establish a blueprint for action to implement water quality improvement, aquatic and terrestrial habitat conservation, and restoration activities are being developed for: Georges Creek, Allegany County; Little Patuxent River, Howard County; Middle Chester River, Kent County; Manokin River, Somerset County; and Isle of Wight, Worcester County. Action Strategies for Maryland's remaining 54 priority watersheds will be developed in the future.

Urban and Community Forestry Program

Urban forests provide numerous services to communities, including stormwater management, pollutant interception and carbon sequestration. This differs from the traditional view of forests and forestry as primarily providing only goods such as lumber, pulpwood and firewood. The goal of urban forestry initiatives is to help our grey (non-living - built infrastructure) and green (biotic or living) infrastructures to coexist without conflict, providing important ecosystem functions and facilitating liveable communities.

In 2001 - Thirty-nine Maryland communities participated in the Tree City USA program. These jurisdictions spent an average of \$4.19 per capita, for a total of nearly \$12 million, to support urban forestry programs for more than 2,855,240 citizens, or 55 percent of the State's population.

Goal 5 - Establish A Protected Statewide Network of Ecologically Valuable Private and Public Lands

Determine how to best direct growth, conserve land, and implement restoration activities by identifying which landscapes are crucial to Maryland's long-term ecological health

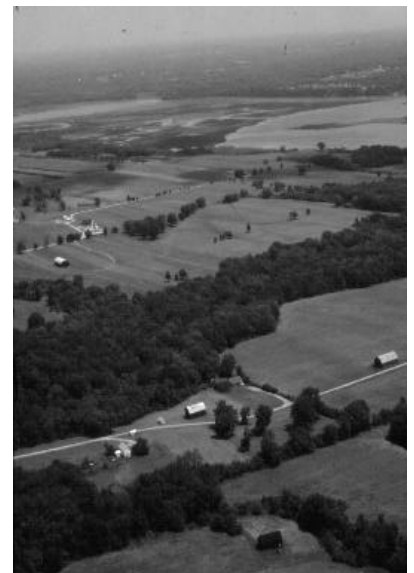
GreenPrint

In May 2001, Governor Glendening signed into law a new \$35 million program designed to protect lands critical to long-term ecological health. These lands, referred to as Maryland's green infrastructure, provide the natural foundation needed to support a diverse plant and animal population, and enable valuable natural processes like filtering water and cleaning the air to take place. GreenPrint is aimed at protecting the most valuable remaining ecological lands in Maryland. These lands are becoming fragmented and are disappearing at a rapid rate, particularly in developing areas. A focused and sustained conservation initiative among state and local partners is needed to maintain biologically diverse landscapes. As the State's most recent Smart Growth initiative, GreenPrint will support efforts to steer growth to appropriate areas while preserving portions of the landscape that make Maryland both bountiful and captivating.

The Department of Natural Resources has identified over two million acres of green infrastructure lands. The new program is expected to boost the State's land conservation capacity by about 13,000 acres per year for the next five years. State officials hope to leverage other resources and plan to work with citizens, land trusts, and conservation groups to stimulate a variety of actions to protect these important lands.

In 2001 - The Board of Public Works approved funding for six land acquisitions under the GreenPrint Program:

- Jacoby Development Corporation (610.5 acres, Anne Arundel County): Addition to Jug Bay Wetlands Sanctuary that includes 321 acres within the critical area and 200 acres of marshlands along the Patuxent shoreline.
- Douglas Point PEPCO (1,263 acres, Charles County): High-quality, mature forest along the Potomac River; includes 90 acres of wetlands and 1.8 miles of shoreline.
- Friends Meeting/Quaker Camp Easement (382 acres, Frederick County): Contains rare and endangered plants native to a swamp near Thurmont
- Douglas Point/Wilson Farm (509 acres, Charles County): Contains 112 acres of high-quality, mature forest; 24 acres of wetlands; and, 13,208 feet of stream.
- Emmitsburg Watershed (570 acres, Frederick County): Contains 306 acres of interior forest and 1,435 feet of streams.
- Chaney (313 acres, Charles County): Heavily wooded land adjacent to the Myrtle Grove Wildlife Management Area. Includes 31 acres of wetlands and 242 acres of interior forest.



Maryland Environmental Trust (MET)

This semi-independent board negotiates and accepts conservation easements over properties with environmental, scenic, historic or cultural significance; provides grants, loans and technical assistance to local land trusts; coordinates the Rural Village Protection program; and administers the Keep Maryland Beautiful Awards program.

In 2001 - The Maryland Environmental Trust (MET) added 16,409 acres of land to their conservation easement totals. In FY '01 alone, 57 new easements protected 9,461 acres of land, including 26 Rural Legacy easements and 39 easements that were established jointly with local or regional land trusts. As of January 2001, MET's lifetime cumulative totals were 580 easements covering 77,656 acres.

Maryland Greenways Commission

Greenways are protected natural corridors in cities, suburbs and rural areas. Some greenways are pristine wildlife or ecological corridors not intended for human use or access; others are designed primarily to accommodate recreational users or educational activities. A greenway can be a protected creek bed, a trail, a ridge line, or strip of vegetation along a stream bank, a converted railroad or utility right-of-way. The Maryland Greenways Commission was created through an Executive Order in 1990 and is charged with the mission of promoting and coordinating the protection and development of greenways throughout the State of Maryland. Representatives from the public and private sector are appointed by the Governor to serve on the Greenways Commission which is staffed by and housed in the Department.

In 2001 - The Maryland Greenways published and distributed the new Maryland Atlas of Greenways, Water Trails, and Green Infrastructure. This third edition was expanded significantly to include green infrastructure and identification of water trails, and contains maps and information of more than 1,500 miles of existing greenway corridors and 600 miles of major trail systems.

Rural Legacy Program

The Rural Legacy Program was created in 1997 to protect large contiguous tracts of Maryland's most precious cultural and natural resource lands. Administered by the Department, the Rural Legacy Program provides the focus and funding necessary to protect large contiguous tracts of land and other strategic areas from sprawl development, and enhance natural resources and agricultural and forest lands through cooperative efforts among state and local governments and land trusts. Protection is provided through the acquisitions of easements and fee estates from willing landowners, and the supporting activities of Rural Legacy Sponsors and local governments. The Program's goal is to protect 200,000 acres or resources by the year 2011, earmarking \$71.3 million for Rural Legacy to accomplish these goals.

In 2001 - During FY '01, the Rural Legacy Advisory Committee and Board evaluated 23 funding applications from local governments and private land trusts. Their recommendations – to award \$29.6 million in grants to 15 sponsors for the protection of more than 11,000 acres – were approved by the Board of Public Works. More than 13,343 acres, were protected by sponsors with easements and fee simple acquisitions in FY 2001. Since the program's inception in 1998, \$111.6 million have been earmarked to protect acreage in 24 designated Rural Legacy Areas.

Green Building Program

Created by the Department of Natural Resources in 1997 to complement Governor Parris N. Glendening's Smart Growth and Neighborhood Conservation Initiative, Maryland's Green Building Program encourages the design and construction of buildings, and the development of sites, in a manner that enhances the efficient use of materials and natural resources, protects ecosystems, habitats and hydrology, and promotes sustainable communities. Just as important as **where** we grow, the Green Building Program critically examines **how** we grow. The Program facilitates change by taking a holistic approach in primarily two focus areas: 1) Sustainable, High Performance Buildings; and, 2) Environmentally Sensitive Site Design &

Development. The Program works with a variety of public and private partners – architects, design consultants, state and federal agencies, local governments, non-profit research groups – to educate homeowners, builders, developers, and others about environmentally sound land development and sustainable building design practices.

In 2001 - The Green Building Program, partnering with the Lower Western Shore Tributary Team, initiated dialogue to institutionalize cleaner energy production and energy efficiency for state facilities. On March 11, 2001 Governor Glendening signed an Executive Order, which identified several goals relating to energy efficiency, clean energy production, and the creation of the Maryland Green Building Council. The first mandate of the Council was to develop the criteria for which all state owned and leased facilities were to be designed, constructed, operated, maintained, and deconstructed. The Program used its traveling **Green Building Exhibit** to showcase materials, techniques and practices at: the Maryland State Fair, Maryland Municipal League's and Maryland Association of Counties' Annual Conferences, the Home and Flower Show, and the Tributary Team Annual Meeting. DNR staff continued to coordinate the **Green Building Network**, which facilitates information and project sharing among builders, architects, developers, design firms, consultants and state planners. Since 1999, the Network has attracted more than 450 participants across the region.

Green Building Baltimore Row House Template - A critical component of Smart Growth and green building principles is to provide urban communities the opportunity to enjoy safer, healthier homes and neighborhoods. With funding provided by the Maryland Energy Administration, the Green Building Program and TerraLogos (a sustainable design and architectural consulting firm) conducted a study to determine if urban rowhouses in Baltimore can be renovated or rehabilitated using green building techniques without an increase in costs. And, if not, how can costs be reduced? The study looked at two sites: Middle East Community Development Corporation and Paterson Park.

Goal 6 Provide for the Enjoyment of Diverse Outdoor Recreation Opportunities for Maryland Citizens and Visitors

Continuously working to offer exciting recreational opportunities and outdoor experiences to increase the appreciation and value of protecting natural areas, waterways and parks



Nature Tourism

The Maryland Department of Natural Resources' Nature Tourism Program provides exciting recreational opportunities for residents and visitors to Maryland. This program offers youths and adults of all skill levels a chance to experience first-hand Maryland's vast resources while hiking and cycling scenic Western Maryland trails, paddling canoes and kayaks along historic waterways on Maryland's Eastern Shore, or rock climbing in some of the State's most breathtaking public lands.

In 2001 - DNR's Nature Tourism team: increased partnerships with professional guides and outfitters to a total of 49; generated more than \$265,000 in private sector revenue; developed and marketed self-guided opportunities; printed new trail guides and publications to enhance visitors experiences; developed a trails manual as a resource for DNR land managers; and identified nearly \$500,000 in grants, capital and Park Improvement Program funding for park enhancements.



Goal 7 Ensure a Diverse, Well Supported, Cooperative and Informed Workforce

In the Statewide effort to reach out to the community at large to communicate the concepts and utility of Smart Growth, we must simultaneously ensure that the culture of the Department is thoroughly grounded in the principles of its programs, so that DNR staff can communicate the principles of Smart Growth to the public in their everyday interaction.

DNR Smart Growth Seminar Series

The Growth and Resource Conservation Division works to coordinate the Department's role in the implementation of Maryland's Smart Growth Initiative, including developing a Smart Growth ethos for all Departmental activities and programs. Towards this effort and in cooperation with the MANTA Noon Seminar Series, the Division developed a series of noon "brown-bag" Seminars. The Smart Growth Series of the MANTA Noontime Seminars were designed to update staff on statewide Smart Growth programs and bring to surface how DNR programs and activities contribute to this effort as well as ways these programs can help the Department further implement Smart Growth.

In 2001 - The Growth and Resource Conservation Division hosted four seminars. Topics presented to DNR staff include: "Main Street Maryland," Cindy Stone, DHCD; "Economics of Land Use: What Causes Land Use Patterns?" Nancy Bockstael, University of MD, Department of Agricultural and Resource Economics; "Sea Level Rise in Maryland," Dr. Court Stevenson, University of Maryland, Horn Point Lab; and "Green Buildings – LEED Rating System," Donna McIntire, U.S. Green Council.

Ecosystem-Based Management Training Program

The Maryland Department of Natural Resource's Ecosystem Council was formed and charged with the task of guiding the Department's endeavor to manage Maryland's natural resources from an ecosystem approach. In December 1996, the Ecosystem Council reported on seven outcomes. Two of those outcomes included strategies calling for training in ecosystem management principles for DNR staff as well as interested parties outside DNR. Through a partnership between DNR and the University of Maryland, a formalized training program has been offered for three consecutive years, training nearly 100 state employees and university students.

In 2001 - The course syllabus included discussions with the Maryland Environmental Trust, the American Farmland Trust, The Nature Conservancy, Rouse Development Corporation and other resource professionals from State, Local and

Academic Institutions to provide a framework to focus on whole, ecologically functioning systems, not just the system's parts.

Goal 8 **Assure Efficient and Effective Operations**

Increase the availability of information and expertise to meet the needs of the Department and to better serve the public.

Geographic Information Systems (GIS)

Highly sophisticated GIS systems continue to bring greater efficiency to major DNR programs. When it comes to land conservation activities, these information systems produce accurate evaluations of protected, environmental and agricultural lands. Effective review capabilities help to speed the acquisition of important easements and environmental land purchases for Rural Legacy, Program Open Space and Green Infrastructure. This is accomplished by providing quick access to information about parcels that shows how these properties relate to regulatory, cultural and environmental features.

The maps created by GIS systems are very effective communication tools that support many of the Department's growth and land stewardship programs. Internet provides the public and other government agencies with access to DNR's GIS systems, helping them to obtain the information they need to be good stewards of the land and protect our living resources.

DNR Online

The Department's web presence continued to expand its service to an established group of regular customers. The site serves about 90,000 unique users each month, with more than 18,000 customers visiting more often, to access 800,000 documents.

In 2001 - The Growth and Resource Conservation Division restructured the way the Unit provides services via the Internet. With Smart Growth as the framework, the new website uses an easy to use format to coordinate the Unit's message and activities.
www.dnr.state.md.us/smartgrowth



DNR's

SmartGrowth

ToolBox

Maryland Department of Natural Resources
Smart Growth Annual Report, 2001



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